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### Regularory co-opetition

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# TILEC Discussion Paper

# **Regulatory Co-opetition: Transcending the Regulatory Competition Debate**

*Damien Geradin and Joseph A. McCahery*

## **INTRODUCTION**

The reduction in barriers to trade and the liberalization of financial markets, transportation and telecommunications have created the basis for the increase in flows of factors of production between jurisdictions (Bratton and McCahery, 1997). As countries move to a more liberalized domestic economy, questions of competition between jurisdictions abound. With the prospect of increased capital mobility, it is becoming conventional wisdom that national governments are forced to perform their economic policy functions more efficiently since governments that yield optimal levels of public goods may be more successful in the competition between jurisdictions for attracting mobile resources. The concern to attract mobile resources has shaped entire areas of governmental policy and plays a determinative role for firms locating new plants. Arguments in favour of decentralization follow from the economics of competition between jurisdictions. The theory of regulatory competition tells us that allowing for more decentralization helps to remove much of the asymmetrical information problems, reduces the prospects of regulatory capture, and enhances the introduction of a range of alternative solutions for similar problems. The economic advantages of decentralization undoubtedly provided a strong argument for politicians within federal systems to introduce the dynamic of diversity as a counterbalance to the discretion of central government (Inman and Rubinfeld, 1997a; McKinnon and Nechyba, 1997; Choi and Guzman, 2001).<sup>1</sup>

Regulatory competition is an economic theory of government organization that equates decentralization with efficient results.<sup>2</sup> The theory makes an analogy between law and commodities,<sup>3</sup> and then asserts that lower level governments - local, state, or national, as opposed to federal or supranational - should compete for citizens and factors of production when they regulate. It predicts that such competitively determined regulation will satisfy citizen preferences. The prediction has a normative implication for legal and political theory: just as price competition disciplines producers of private goods for the benefit of consumers, so regulatory competition promises to discipline government for the benefit of taxpaying citizens. Regulatory competition has been brought to bear on the entire range of federalism discussions, usually to support a devolutionary initiative or to oppose a proposal for federal intervention.<sup>4</sup> The theory originated in public economics with the publication of the Tiebout model in 1956, which, in turn, influenced its own field profoundly (Dowding et al., 1994). Theoretical arbitrage to legal contexts occurred early in the history of law and economics. But, in contrast to regulatory competition's development in its home field, where it remained closely tied to the study of the production of public goods by state and local governments, lawyers, economists and political scientists in the United States have applied it across an expanse of subject matter, from corporate law and banking to environmental law and trade law (Esty and Geradin, 2001b; Inman and Rubinfeld, 2000; Weingast, 1995).

After becoming a fixture on the landscape of American federalism, regulatory competition expanded to venues worldwide (Bratton et al., 1996). It has been brought to bear within other federal and quasi-federal systems. Most notably it has figured in discussions on strategies for integration with the European Union, especially in the context of the centralization versus subsidiarity debate crucial to many countries in the EU (Van den Bergh, 1996, 1998). The European Union Treaty agreed by the European Council at Maastricht in 1991 provides for the principle of subsidiarity according to which the Community should only intervene when it is better placed than the Member States to act.<sup>5</sup> Yet a prominent feature of the Maastricht Treaty is the transfer of a range of regulatory functions to the Community level. One

justification for this policy is that market integration requires national monetary and fiscal policy be coordinated by a centralized institution (Kletzer and von Hagen, 2000; Alesina and Wacziarg, 1999; Bednar et al., 1996).

The post-Maastricht debate has given rise to two divergent positions concerning the optimal allocation of political and economic power in the EU. The debate over the appropriate location of power is conducted in the domain of efficiency, equity and accountability. On the one hand, the decision to centralize policy at the federal level is primarily defended on the basis that it permits the Community to internalize significant spillovers by redistributing risk across regions.<sup>6</sup> Centralization, taking the form of harmonization of rules, is also often perceived as necessary to eliminate barriers to trade, as well as distortions of competition (Inman and Rubinfeld, 1997a). On the other hand, decentralized policies provide incentives for states to commit to efficiency-enhancing regulation. Subsidiarity favours the view that economic policy-making should be restricted to lower levels of government unless there exist credible circumstances for regulatory power to be centralized (Inman and Rubinfeld 1998). What subsidiarity captures is the sense that competition between jurisdictions provides a counterbalance to the drive for enhanced integration based on centralized coordination of national laws and policies (Woolcock, 1996).

In the debate over whether to undertake regulation by central or a lower-level authority, proponents of legal federalism look to the economic theory of jurisdictional competition to provide support for devolutionary initiatives. Proponents of deregulation insist that there is a strong connection between decentralization, competitive behaviour and efficient results (Romano, 1993, 2001). Regulatory competition is thought to follow from a robust economic theory that supports two general assertions. First, competitive forces shape a wide range of regulatory outcomes at state and local levels because menus of regulation figure significantly in the location decisions of citizens and factors of production. Second, the competition results in a market that equilibrates regulatory outcomes and citizen preferences. Two conditions must obtain, however - the lower-level regulation must not generate significant externalities and borders must remain open for the free movement of capital and labour (Easterbrook 1994). Given satisfaction of these conditions, the lower-level market for regulation (if left free to operate by the central government) will provide an 'empirical answer' to important policy questions, since only the public goods and regulatory restrictions for which citizens are willing to pay will survive (Weingast, 1995). Central government intervention inhibits the operation of the market, and therefore is at best unnecessary and at worst results in deadweight anti-competitive costs. There emerges a presumption, in favour of locating regulatory authority at lower-level units (CEPR, 1993; Seabright, 1996).

We argue that economic theory, in fact, supports neither the sequence of assertions nor the bottom-line presumption in the theory outlined above. In doing so we do not deny the existence of regulatory competition, however. There are entire areas of law that manifestly have been shaped by competition (Romano, 2001; Bar-Gil et al., 2002; Levinson, 1996; Macey, 2000; Stewart, 2002). State and local governments also make taxing and spending decisions where competition clearly plays a determinative role - stadium deals for professional teams and tax breaks for local firms locating new plants being the most obvious examples. Nor do we deny that competition can have beneficial effects. Nor does our argument imply wholesale rejection of the body of legal scholarship on regulatory competition. To the contrary, we find that situation-specific legal applications provide a source of material for demonstrating the theory's shortcomings. We even agree that regulatory competition may be termed a federalism value - at least at a broad structural level.

In this chapter, we argue that both 'race-to-the-bottom' and regulatory competition theories - and the resulting centralization and decentralization strategies that they imply - are overstated from a descriptive point of view and unsatisfactory from a normative one. The world is diverse and complex and regulatory competition should reflect and parallel this complexity. A

theoretical work by Daniel Esty and one of us provides a study of the patterns of regulatory theory, which we build on in section 3 (Esty and Geradin, 2001a). We argue therefore that optimal governance requires a flexible mix of competition and cooperation between governmental actors, as well as between governmental and non-governmental actors. This approach is called 'regulatory co-opetition'.<sup>8</sup>

This rest of this chapter is divided into three sections. Section 2 provides a critical overview of regulatory competition theory, which today represents the dominant academic thinking about regulatory structure (Bratton and McCahery, 1997). We recognize the merits of regulatory competition but see the prevailing theory as incomplete and unnuanced. Our fundamental critique is two-fold. First, we argue that in many instances the 'locational rights' market created by competition among regulators fails and that some form of cooperation between and among jurisdictions is required to prevent inefficient outcomes. Thus, contrary to the position defended by most regulatory competition theorists, we conclude that, in the real world as opposed to the world of theory (and building on observations from the United States and the European Union), the welfare-enhancing effects of decentralization cannot be presumed. Second, we argue that standard regulatory competition theory posits too limited a mechanism for exerting real competitive pressure on governmental actors (Esty, 1998). Competition between horizontally arrayed jurisdictions represents only one of the forms of pressure that disciplines state actors and drives governmental efficiency. Competition between governmental actors at different levels of power (for example state versus federal officials), between stakeholders within a single governmental unit (for example DG MARKT versus DG Environment), or between government decision-makers and non-governmental organizations (NGOs) may also prove valuable (Esty, 1999). In fact, these multiple dimensions of competition, combined with mechanisms of cooperation, seem likely to enhance regulatory efficacy and efficiency more than simple interjurisdictional horizontal competition.

Section 3 develops regulatory co-opetition as an alternative model. This theory builds on the view that the best regulatory systems require a mix of competition and cooperation across various levels of government, within the branches or departments of a government, and between regulators and non-governmental actors. The analysis of regulatory co-opetition, as developed by Esty and Geradin (2001a), has three main dimensions: (1) inter-governmental (reflecting the dynamics of competition and cooperation *among* governments, both horizontally and vertically arrayed); (2) *intra*-governmental (arising from the give-and-take between departments and officials *within* governments); and (3) *extra*-governmental (driven by the simultaneously *cooperative* and *competitive* relations between governmental and non-governmental actors).

Section 4 offers a brief summary and our conclusions. We argue, in particular, that the diversity of the regulatory challenges that governments face and the complexity of the world in which we live demand regulatory strategies that are pluralistic, not simplistic. Sometimes regulatory competition will prove to be advantageous; in other cases, some form of collaboration will produce superior results. More often, a combination of competition and cooperation will be optimal.

## 2. REGULATORY COMPETITION: A CRITICAL OVERVIEW

The concept of regulatory competition can be traced to Charles Tiebout's (1956) original article arguing that a decentralized governmental system, with horizontally arrayed jurisdictions competing to attract residents on the basis of differing tax and benefit structures, produces efficient outcomes. The Tiebout model focuses on citizen-voter tastes for local public goods in the hypothetical context of a city resident contemplating a move to the suburbs and choosing among a number of towns. The model makes three assumptions. First, locational decisions will reveal individual preferences for public goods and levels of taxation: rational, forward-looking individuals, after surveying the range of available choices, will act in accordance with their preferences for location-specific bundles of goods. Second, a local public goods equilibrium can be established, if like producers of private goods and services, local government units compete with their public goods offerings to attract in-

migration. Third, the promotion of competition between local governments should lead to an optimal balance between level of taxation and the provision of public goods. Given all this, there arises a general presumption favouring the provision of public goods at the local level. Notice that the essence of regulatory competition is that it provides a medium which ensures that the competition among jurisdictions takes place.

Taken literally, Tiebout's model has policy implications for only a limited class of government activities (Bratton and McCahery, 1997). It addresses the production of 'public goods', that is, goods and services produced by public authorities for which people are willing to pay taxes, such as police and fire protection, primary education, roads and sewers. Scholars since Tiebout have developed the analysis for firms (Gates and Schwab, 1988). In recent years, the original model of public goods production has been extended to government output of regulation. Under the expanded view, the public consumes and pays for regulatory outcomes such as contract enforcement, environmental regulation, health and safety standards, and stable labour relations (Myles, 1995). The extended Tiebout model assumes that governments are suppliers of legal structures and products. Like producers of any other good, these actors could and should be disciplined by market forces. Competitive pressures, so the theory goes, force governments to produce their regulatory products at competitive 'prices' (so that the benefits of governmental intervention exceed the costs) on pain of losing their customers, in this case citizens or businesses (Easterbrook, 1983). The normative strength of the theory lies in the hope that competition will stimulate experimentation, innovation, and product differentiation in regulation, as in markets for products (Calabresi, 1995). The process of refining the product (regulatory requirements and approaches) to meet consumer (societal) desires thus leads to the adoption of more efficient laws and enhances social welfare.

For regulatory competition theorists, centralized systems of standard-setting should be seen as regulatory cartels which, as any other form of collusion between competitors, inhibit the operation of the market, raise prices and reduce economic efficiency. Such intervention should therefore be eliminated or narrowed to the greatest extent possible.<sup>9</sup> Fundamentally, regulatory competition theory generates a strong presumption in favour of governmental action on a decentralized basis (Revesz, 1992). It is assumed that by increasing the lower units' subject-matter jurisdiction, decentralization expands opportunities for competitive lawmaking. Significantly, many of the benefits thus claimed for decentralization obtain whether or not it precipitates an outbreak of competition. Reducing the size of the regulatory unit narrows the variance in the distribution of preferences, reduces the likelihood that preferences will be bundled and, presumably, ameliorates some problem of asymmetrical information (Woolcock, 1996). Regulation, thus adapted to local conditions, is more likely to approach the ideal of consonance with citizen preferences.<sup>10</sup> At the same time, decentralization increases the probability that a diverse range of preferences will come to be manifested in regulation promulgated by one or another jurisdictions (Seabright, 1996). The localized experimentation, thus fostered, makes it possible for a range of regulatory strategies to appear, while simultaneously limiting the negative impact of unsuccessful experiments (Romano, 1993).

Finally, decentralization reduces the scope of the central government monopoly and ameliorates the negative effect of regulatory capture. Capture leads to bigger dead-weight costs when authority is exercised at higher levels of government. Local authorities have a lesser capacity to damage the economy. They cannot impose tariffs and quotas on imports; their licensing arrangements have a limited reach; and their limited resources reduce the capacity to offer significant subsidies. Incentives to interest groups, accordingly, decrease as authority vests in lower levels. These units of course remain subject to small-scale influence activities (Dixit et al., 1997). But, at this point, horizontal competition can have a disciplinary effect that minimizes the losses stemming from capture arrangements. Given mobility of people and factors, the imposition of costly and restrictive interest group legislation in one jurisdiction benefits a neighbouring jurisdiction with a less costly regime. As the factors vote with their

feet, they affect the incentives of lawmakers -inefficient wealth transfers to favoured groups become less attractive than regulations that enhance the wealth of the larger population.

The list of relative advantages of decentralization and competition coalesces into a race to the top when projected into the standard evolutionary framework. Thus extended, the Tiebout model promises an efficient allocation of industrial activity among horizontally situated jurisdictions (Revesz, 1992). In a dynamic environment, the competitive forces that achieve this result should assure that only efficient regulation continues in effect. Over time, then, competition raises the quality of all regulation. In contrast, centralization and its secondary counterpart of coordination across junior units emerge as the regulatory equivalent of price-fixing, presumptively retarding the competitive evolution of efficient law. Accordingly, the proponents of central government intervention must bear the burden of showing why market forces will not eliminate the problem in due course.

Two universally recognized exceptions to this presumption of favouring decentralization should be noted. First, borders must be kept open so factor and citizen mobility can bring competitive discipline to regulation (Easterbrook, 1983). Authority to suppress anti-competitive lawmaking must be vested at higher levels of government, through either judicial or legislative intervention. The Commerce Clause of the United States Constitution is a case in point as it can be used by federal courts to strike down protectionist state measures, as well as by the federal government to pre-empt state legislation. Second, this higher authority must police the externalities pursuant to economic theory's command that the scope of regulation match the domain of its costs and benefits. Competing governments have an incentive to regulate so as to facilitate cross-border externalization by their citizens.<sup>11</sup> The classic example occurs when a jurisdiction excepts from its environmental laws a given type of pollution knowing that prevailing winds will blow the permitted particles across borders. Here, not only does the producer externalize a cost, but those affected by the externality have no voice regarding its regulation and have not traded their sufferance for higher incomes. With externalities, multiple jurisdictions can even race to the bottom, justifying either intervention by a higher-level unit or intergovernmental cooperation to remedy the situation (Stewart, 1993).

A third exception, for welfare and redistribution policies is widely (if not universally) acknowledged (Oates, 1972). Competing local governments have incentives to encourage new investment and immigration by rich citizens and to discourage immigration by poor citizens. It follows that a decentralized system probably leads to a lower level of government-mandated wealth redistribution than its citizens might prefer. This third exception would also justify centralized welfare provision (or central intervention to impose minimum welfare standards) (Gillette, 1994).<sup>12</sup>

### 3. THE DEBATE IN LEGAL FEDERALISM: THE RACE TO THE TOP VERSUS THE RACE TO THE BOTTOM

#### 3.1 The Model and its Implications

The jurisdictional competition paradigm crosses the barrier that separates the public and private spheres to recast the public sector in private terms. Policy inquiry is diverted from the government's role as a benevolent maximizer of social welfare both in the provision of traditional public goods and as an economic regulatory to an exclusive preoccupation with the processes that bring the rules into existence. The legal federalism debate focuses on the legitimacy of this barrier-crossing. Proponents argue that the ensuing race to the top will ensure

high standards of government service. Opponents respond that competitive government actors will forsake their mission and thereby race to the bottom.

To see this race-to-the-bottom perspective, consider how a proponent of a public interest approach would respond to the race-to-the-top theory. From a public interest perspective, dismantling federal regulations to encourage junior-level competition amounts to a betrayal of the public interest. With competition, the content of regulation and the level of public goods and taxation are dictated by the private preferences of a narrow, arbitrarily identified class of itinerant at-the-margin consumers, rather than by a dispassionate and responsible calculation of public welfare. The individual jurisdiction, forced to cater to the preferences of this narrow class, loses its ability to pursue its notion of the best interests of the citizens committed to remain within the jurisdiction for the long term. At the same time, dismantling federal regulations deprives disaggregated groups of states and localities of the technical ability to regulate multistate businesses, with the mere threat of disinvestments sufficing to move legislatures to satisfy firms' preferences (Stewart, 1993).

The race-to-the-bottom view shares an important point with its race-to-the-top opposite: both assume that government actors intensely compete for factors of production. Under the race-to-the-bottom theory, however, the race proceeds downward because competition forces the pursuit of policies further and further removed from the public interest. The characterization invites the remedy of pre-emptive centralization. If, for a particular subject matter, the race necessarily proceeds to the bottom, then a higher-level government should regulate the subject matter whether or not the competition presently determines the content of regulation at junior levels. This is best known as the justification for the federalism of environmental law.

The environmental law literature also contributes a restatement of race-to-the-bottom positions in economic terms. This provides that, without centralization, competition for production factors would leave states in a prisoner's dilemma respecting environmental standards (Samoff, 1997; Swire, 1996). The threat of production factors defecting to a competing state would deter any individual state from promulgating environmental standards consistent with its preferences. The greater the competition, the greater the disparity between the level of environmental protection in the public interest and that evolving in practice.

Proponents of jurisdictional competition have rebutted this description (Revesz, 2000). They argue that the prisoner's dilemma rests on a set of heroic assumptions, specifically the presence of fixed preferences for strict regulation across many jurisdictions, each of which believe that cost-benefit tradeoffs should not be applied to the subject matter. Competition for factors of production and collective action problems then undermine the jurisdiction's ability to adhere to the stated policy, producing a suboptimal result (Revesz, 1992). The critics contend that a more realistic set-up would depict a world of scarce resources in which the inevitable cost-benefit tradeoffs between levels of regulation and income would prevent the assumption of any *a priori* fixed preferences for a given level of regulation. Without fixed preferences across jurisdictions, a jurisdiction cannot assume that cooperation will yield higher payoffs, such that a prisoner's dilemma is no longer inevitable.<sup>13</sup> It remains possible in theory; but, say the critics, in practice it is unlikely that absolute, normatively based preferences, whether for stricter environmental rules or some other form of regulation, would exist across jurisdictions (Majone, 1991).<sup>14</sup>

The race-to-the-top view has the better of this discussion. Where once the race-to-the-top and the race-to-the-bottom views competed for attention as pragmatic opposites of equal strength, we now see a general presumption in competition's favour (Daines, 2001; Romano, 2001). The result is said to follow from economic theory; regulatory competition pursuant to the Tiebout framework has survived critical theoretical inspection, while the race-to-the-bottom view has not (Revesz, 1992). In the next section, we survey the limitations of the jurisdictional competition approach.



### 3.2 Limitations of the Model

#### Market failure

The virtues of regulatory competition derive from the forces generated by a functioning and competitive market for legal products. There are, however, a host of reasons to believe that this market rarely operates in the manner envisioned by regulatory competition optimists and is, in fact, often marked by market failures, notably a lack of adequate (never mind *perfect*) information (Esty, 1999). Because the market for locational rights is relatively *imperfect*, untrammelled regulatory competition cannot be counted on to produce optimal outcomes." While these market shortcomings are not universally or uniformly present, their real-world frequency makes a strong presumption in favour of decentralized governance or high expectations from simple strategies of regulatory competition unwise.<sup>16</sup>

*Externalities* Externalities represent a primary cause of failure in locational rights markets (Seabright, 1996). The inefficiency of markets where private and social costs diverge has long been understood (Pigou, 1918), and the extension of this principle in the public goods context to circumstances where a harm (or benefit) to be regulated falls outside the jurisdiction of the regulating authorities has nearly as long a history (Baumol and Gates, 1988). If regulators ignore impacts beyond their own jurisdictions, the standards they set will be systematically suboptimal (too low if they overlook transboundary regulatory benefits and too high if they disregard transboundary regulatory costs). A variety of such uninternalized externalities threatens market failure and allocative inefficiency with regard to decentralized regulation.

Externalities can be found in many realms but particularly plague certain regulatory domains such as environmental protection (Stewart, 2002). The classic externality is a *physical* pollution spillover such as air emissions blowing across political boundaries. For many years, for example, Britain did not control sulphur emissions from its power plants because most of the adverse effects were felt in Scandinavia or elsewhere. Given the prevailing winds, Britain did not suffer especially from acid rain, but its air pollution standards were suboptimal from an overarching perspective because it failed to internalize the costs of the pollution that fell beyond British borders. A similar acid rain dynamic exists between the United States and Canada as well as between China and Japan.

Externalities may also be *economic*.<sup>17</sup> Weak enforcement of antitrust rules or intellectual property rights in one nation may have a negative impact on the profits of foreign-based producers whose products are thereby squeezed out of the market. To the extent that these spillover effects are not based on market-clearing effects, but rather driven by strategic behaviour, suboptimal results must be anticipated.

To avoid welfare losses and market distortions, such externalities must be corrected through some form of interjurisdictional collective action. The theoretical logic behind the need for regulatory collaboration at an overarching level in the face of transboundary externalities is not much disputed even by regulatory competition advocates (Revesz, 1992). What remains contested is the pervasiveness and scale of such market-disrupting externalities. We believe that the degree of uninternalized externalities may, in fact, vary widely from one field of regulation to the next - with important implications for how much relative emphasis can be placed on regulatory competition.

*Imperfect information* A second cause of market failure undermining the potential gains from regulatory competition derives from information deficiencies. For markets to work efficiently, the buyers must have 'perfect' information, which, in the context of regulatory competition, means sufficient data to determine whether the government is delivering an appropriate level of regulation and doing so in a cost-effective manner. The buyers (businesses and citizens) must also

be fully informed about the alternative regulatory packages offered by competing jurisdictions, and they must be aware of the options that they have to exit or move.

This information may not be readily accessible. Some aspects of the requisite data will be relatively easy to obtain and to compare so long as the competing jurisdictions share the same language and legal traditions. For instance, an American company may well be able to identify state laws and regulatory burdens that might apply to its operations as it contemplates building a new factory somewhere in the United States. The same information-gathering will prove more difficult, however, in the European Union - or among other groups of independent nations - because of the greater cultural and regulatory heterogeneity of their component entities. In addition, information costs will often be prohibitive when the buyer is not a firm but an individual trying to determine where to live, when the scope of the inquiry covers a large number of regulatory variables (environment, health, safety, tax burden, support services, and so on) or when the options encompass many jurisdictions.

The likelihood of information-deficiency-induced market failures also mounts in some regulatory realms because of the high level of underlying uncertainty about regulatory costs and benefits (Esty, 1999). Thus, while average citizens may be able to judge whether the roads that a town provides are adequate, they will not be well positioned to determine whether the degree of air pollution protection provided by a particular jurisdiction matches their needs.

One other information problem should be mentioned, this one lying on the supply side. Law production results from deliberative, political processes. If asymmetrical information exists amongst competitive lawmakers, or one set of regulators fails properly to account for the choices of others, no equilibrium matching of regulation and preferences will result (Majone, 1996). Alternatively, one jurisdiction may inaccurately predict the tradeoff calculus prevailing in another, setting its regulatory standard lower (or higher) than necessary (Stewart, 1993). In either case, later development of a potentially full set of information will at least create an opportunity for a cure. Given competitive forces, neither interest group deals nor political stasis should get in the way of adjustment. Relative stakes should be pertinent once again: the greater the capital investment riding on a particular regulation, the less of a problem information asymmetries should present.

In sum, where the regulatory cost-benefit calculus is relatively clear, certain and visible, regulatory competition will be more likely to yield welfare benefits. But, in realms where the costs or benefits of governmental intervention are more obscure, operation of the market in locational rights may not enhance social welfare.

*Lack of mobility* The lack of mobility of market participants may also lead to regulatory market failure. For regulatory competition to work, 'buyers' of standards and the legal regimes that support them must be able to move to the jurisdiction that offers the package of costs and benefits that most closely matches their own needs and values.<sup>18</sup> But the assumption of perfect mobility may not reflect reality.

The Tieboutian vision of 'people voting with their feet' bears little resemblance to the real world. Significant transaction costs will attend the individuals' changes of domicile. These costs will vary depending on both the distance of the move and the relevant conditions of the housing market and employment market. These costs relate directly to the geographic size of the home and target jurisdiction. The larger the community, the greater the cost barrier to the move, and thus citizens become less mobile (Mueller, 1989). Furthermore, cultural barriers and tradition affect mobility. In Europe, for example, the vast majority of people live all of their lives in their countries, and even towns, of origin (Bratton and McCahery, 2001). The elasticity of population migration as a function of policy variability appears, in fact, to be rather low.

In the case of businesses, market requirements and regulatory barriers dramatically constrain mobility. Many companies serve local markets or have large amounts of capital tied up in immovable assets. Thus, threats to migrate are often empty. Moreover, legal regimes can hinder

mobility. The ability of European firms to move (by 'rechartering') in other Member States has been impeded, moreover, by the 'real seat' doctrine - the rule that the law governing the corporation is that of its actual seat of business, not simply that of a state in which it has filed appropriate papers or keeps a mailing address (Rammeloo, 2001; Charny, 1991). Experts agree that application of this doctrine in most Member States has been a key factor preventing the famous Delaware incorporation phenomenon from occurring in Europe (Cheffins, 1997; Edwards, 1999; McCahery and Vermeulen, 2001). The upshot of this discussion for regulatory competition theory is a notion of differential mobility: in advanced economies, capital mobility will exceed that of labour, particularly across national borders. The incidence of regulatory competition will reflect the differentials. We are unlikely to see competition for residents across national borders along the lines predicted by Tiebout's model of American local government. Instead, as we have seen in the context of securities regulation, national regulators will be competing to offer low-cost regulatory products to highly mobile factors. In effect, immobile factors of production - individuals in different countries or locations - will be competing for the only really mobile factor: capital (Bratton and McCahery, 2001).

*Economies of scale and transaction cost savings* Economic theory teaches that if economies of scale are important, a single supplier may be more efficient than several competing suppliers. When regulatory economies of scale are present, centralized standard-setting procedures may thus be more efficient than regulatory competition.<sup>19</sup>

Some aspects of regulation are more technically complicated or analysis-intensive, making them susceptible to economies of scale that might overwhelm any benefits from multiple jurisdictions competing with diverse regulatory approaches. Some elements of regulation, moreover, are driven heavily by 'facts' that do not vary geographically - for example the safe level of human exposure to carcinogens - rather than by divergent circumstance and values. It may make sense, therefore, for bank regulation to be decentralized across the 50 US federal states or 15 EU member states. But having each US state or EU member state undertake the exhaustive and expensive analysis necessary to set its own pesticide residue tolerances makes less sense.

Absent centralized functions, independent regulators will either duplicate each other's analytic work or engage in time-consuming and complex negotiations over the division of technical labour. The poorer the jurisdiction, moreover, the more likely it is that its regulators will lack basic technical capacity and the resources necessary to do a competent and analytically rigorous job. Likewise, the smaller the regulating entity, the more likely it is to suffer from a lack of scientific, technical and analytic economies of scale. This reasoning does not mean that all food safety or air and water pollution standards should be set (or implemented) by central authorities. It simply suggests that at least *some* regulatory functions will be more efficiently carried out on a centralized basis while other activities will probably be more appropriately handled by decentralized governmental bodies (Esty, 1996).

Collective action - or high degrees of regulatory cooperation - will likewise be more efficient than regulatory competition when interjurisdictional trade is significant and cross-border regulatory transaction costs are high. For instance, inconsistent safety standards for internationally traded goods will generate substantial costs for producers and may even discourage them from exporting their products. Producers may need to spend vast sums on lawyers to spell out the particularized rules of each jurisdiction and then further amounts to tailor their products to local market requirements (Sykes, 1995). Even the most minor regulatory differences can have large economic implications. In such circumstances, it is generally recognized that convergence of standards or some form of mutual recognition policy will be desirable.<sup>20</sup>

*Public choice and political problems* The regulatory competition theory presumes that regulators know the interests of their constituents and act upon them (Revesz, 1992). If, however, special interests manipulate the standard-setting process or other public choice failures distort the regulatory options available to businesses and citizens, the market for locational rights will not function efficiently (Esty, 1996). Much of the recent debate over the value of regulatory competition turns on how pervasive public choice failures are presumed to be (Dua and Esty, 1997).

Incentive pictures on both the supply and demand side become more complex when we shift our attention to the competition for individuals and factors of production. Here, unlike cost-benefit calculations in conventional product markets, which on both the supply and demand side focus on the price and quality of a single product and result in the consummation or rejection of a two-party transaction, political cost-benefit calculations tie bundles of issues together. With regulation, the legal product's effect on local firms can present complex conflicts of interest. If, for example, the regulation is a new environmental control, government actors must consider the welfare effects on all constituents of polluting firms resident in the jurisdiction, in addition to effects on the residents who do (or do not) bear the cost of pollution. Differential effects present problems of preference aggregation, difficult political calculations, and problematic definition of the political interest.

The environmental law example brings us to the problem of winners and losers - all affected actors may not be satisfied with the regulatory result, whether or not competitively determined. The theory remits the losers to self-protection through relocation to a more satisfactory jurisdiction. But that suggestion may not solve the resulting problem of preference aggregation, given bundled regulatory products, information asymmetries, associational ties, cultural preferences and the out-of-pocket costs of a move. Furthermore, if interest groups favouring pollution effectively organize themselves so as to capture regulators throughout the class of horizontally situated jurisdictional alternatives, the list of clean air alternatives will dwindle. Losers may retain access to the regulatory policy process, after all. Given differential mobility, nothing in the competition model prevents this result.

This situation of horizontal capture characterizes the system of corporate law in the United States. Here mobility is relatively cheap and the legal product can be purchased separately; accordingly, factor preferences do determine the content of lawmaking. But the horizontally constituted legal structure remits the relocation decision to one interested group, corporate management, and excludes another whose interests often conflict, corporate shareholders. This ties the supply-side rent incentive to management's interest. Juridical path dependencies and collective action problems prevent the shareholders from exploiting any opportunities to register their influence on the law of any of the 50 available jurisdictions so as to make the competitive system work for their benefit. The result is regulatory capture constituted by a competitively driven lawmaking system. Since management's preferences vastly outweigh those of the shareholders in the resulting legal regime, it is suboptimal in the evaluation of most observers.

*Competitive incentives* The black-box conception of the extended Tiebout model severely limits the model's explanatory capacity. With regulation, self-interested production does not necessarily imply the production of value-maximizing rules. Entrepreneurs produce for pecuniary gain, just as do government actors in the public choice model. Governments, unlike firms, do not labour under an immediate threat of bankruptcy that comes from excess production costs and high prices. As a result, agency problems in the production of public goods tend to be more substantial than those within firms.

Certainly, government actors sometimes can be relied on to produce value-enhancing rules. Presumably, this occurs when tax revenues, export earnings, jobs, technology, or other positive externalities yielded by the attraction of factors of production also happen to yield appropriate

political benefits, either in the form of electoral advantage, satisfaction of the demands of favoured interest groups, or the satisfaction incident to enhancing public welfare.<sup>21</sup> It is less certain that this incentive relationship can be assumed as a systematic proposition. Indeed, where it does exist it can be ephemeral. Unlike firms, which must hew to the profit incentive, the objectives of government suppliers change over time with voter preferences.

The exercise of opening up regulatory competition's black box and inquiring as to competitive incentives shows that special conditions tend to obtain in those cases in which government entrepreneurship becomes wrought into the lawmaking structure. Consider corporate charter competition in this regard. There we do see recognizable buyer-seller relationships, but it also turns out that corporate charter competition is not a game that every state can play. Significant competitive incentives do not show up across the class of potential suppliers. Small jurisdictions tend to take the leading competitive roles. Similar conditions obtain in parallel cases of sale of juridical status -small island states tend to offer themselves as tax havens; Liberia, Panama, and Greece lead in the registration of ships. The explanation prevailing for Delaware probably applies across the board. Corporate franchise fees amount to 15 per cent of Delaware's tax base; the same cash flow would be a trivial percentage of the tax base of a much larger state.<sup>22</sup> Given a limited market, competitive success has a larger impact on the smaller government budget of a small jurisdiction. Political and financial incentives to create (or enter) a legal product market arise when such a significant payoff is held out. The incentive relationship lends plausibility to the product market in turn. The small jurisdiction's propensity to fiscal dependence on its legal business provides a structural assurance that customer interests will take precedence over all competing interests in local political deliberations (Bratton and McCahery, 1995; Bebchuk and Ferrell, 2001; Kahan and Kamar, 2002).

*Network externalities* Even when incentives to compete clearly are present, additional incentive problems may inhibit the evolution of the efficiency of law produced by state competition. Network externality models (Klausner, 1993), for example, show that a demand-side problem can cause suboptimal equilibria to evolve and product innovation to be choked off in situations of intense competition. Supply-side problems may also arise. Product innovation presupposes an incentive to invest. The patent deters entry by competitors, assuring a potential return on investment in research and development. Conversely, if an innovation can be copied by a rival, then new technologies will not efficiently replace old technologies. Legal innovation leads to the production of public goods and carries no patent protection. As a consequence, competing states will have insufficient incentives to invest resources in producing efficient rules. State legislatures will see no point in entering a race to innovate if any resulting lead will be exhausted in a very short period of time (Ayres, 1996). The result of network and learning effects is that the continuous use of the dominant legal rule or code, even if not optimal, will further reduce the incentives for lawmakers to innovate. The reluctance to diverge from the existing framework means that even if new legal rules are created, parties will be unwilling to substitute the standard for non-standard terms. In short, the benefits that accrue to a standardized regime may be sufficient to outweigh the benefits that firms could gain by shifting to a new or modernized statute. Also, since potential first-users of new legislation do not have the advantage of future network benefits, such new forms may only emerge if the inherent benefits are of paramount importance. The switching costs constitute yet another reason that conservative lawmakers accept the *status quo*. The uncertainty about the future benefits of the introduction or modernization of new rules leads to the persistence of inefficient rules and delays genuine legal innovation.

In the contest of US corporate law, for example, the ingredients of increasing returns may involve the externalities that lock in firms to an inferior legal regime. However, even though the mere existence of increasing returns could certainly lead to inefficiency in theory, some

commentators argue that the necessary conditions for its occurrence are easily avoidable. For instance, Romano (2001) argues that states, like Delaware, internalize the network externalities that would otherwise produce inefficient rules. On this view, lawmakers will have an incentive to internalize the costs of inefficient law by promulgating new legislation designed to limit the costs of the dominant legal network. But, if the lawmaking system is constrained due to significant switching costs and high barriers to entry, lawmakers may be satisfied with maintaining the inefficient rules (Bebchuk et al., 2002).

*Bundling and pricing.* A problem lies concealed beneath the Tiebout model's assumption that mobile citizens choose jurisdictions based on levels of taxation and public goods. Private goods are produced and sold separately. Public goods typically are jointly produced and made available on a bundled basis. They are not individually priced.<sup>21</sup> Similarly, regulation tends to apply across the board. Public goods and regulations, moreover, often come in complex packages (Bratton and McCahery, 1997). Furthermore, those complex packages influence the choices of consumers who display greater heterogeneity than those in standard product markets (Rose-Ackerman, 1983). The resulting supply- and demand-side complexity does make it less likely that consumer preferences will have a disciplining effect on producers." It thus comes as no surprise that public economists have noted that there are several assumptions about private goods that cannot be extended to local public goods or regulation (Laffont, 1998, 2001).

### **Too narrow set of competitors**

The second aspect of our critique of the Tieboutian or neo-Tieboutian models of regulatory competition centres on the fact that they represent far too limited a mechanism for exerting real competitive pressure. Competition between horizontally arrayed jurisdictions represents only one of the ways that government officials might be disciplined. Other sources of competition, involving a larger set of competitors, should be envisaged.

First, traditional regulatory competition theory tends to overlook the fact that the structure of federalism is inherently competitive. Dividing power among local, state and federal (and, increasingly, international) authorities generates competing policy perspectives. If decision processes at one level of government are suboptimal or distorted by bureaucratic sloth, special interest lobbying, corruption, elite domination, self-serving politicians, or simply inadequate information and analytic limitations, these shortcomings can be highlighted and perhaps even redressed by having parallel decision-making processes operating at higher or lower levels of government (Esty, 1999).

The same logic applies to the presence of governance structures above the nation-state. The Organisation for Economic Co-operation and Development (OECD) provides a measure of competitive pressure in this regard. The OECD's widely publicized periodic 'national reviews' of its member countries in a variety of regulatory areas often reveal policy weaknesses. OECD 'guidelines' and information-sharing activities serve, moreover, as benchmarks for policy-makers. Similarly, the World Trade Organization (WTO) and other regional trade organizations provide a useful source of discipline against protectionist governmental trade policies (Abbott, 1996).

Another form of policy-making discipline that gets short shrift from many regulatory competition theorists is the competition that exists between the various branches or departments of a government. As Breton argues, government actors are inherently competitive (Breton, 1996). In many policy areas, government departments will struggle to push their own agendas. In the United States, for example, the EPA (Environmental Protection Agency) and the DOE (Department of Energy) compete vigorously over the design of climate change strategies. These two governmental entities come at the greenhouse gas emissions problem from very different starting points; they bring to the issue quite different bureaucratic strengths; and they draw support and information from highly divergent constituencies. Still another

manifestation of competition between government departments with shared regulatory responsibility is the recent conflict between the Securities and Exchange Commission and the Commodities Futures Trading Commission over share futures trading contracts (Scott and Wellons, 2002; Macey, 1994). A similar form of rivalry can be observed in the European Union structure, where Directorate Generals often advance competing strategies to address a common policy issue. While DG Environment will be essentially concerned by the environmental effects of a proposed legislation, the DG Enterprise will be mainly preoccupied by its potential impact on competitiveness.

Finally, competitive pressures will also be generated by NGOs (Esty, 1998). In the intellectual marketplace, it is often NGOs that most aggressively offer alternative data or information, competing analysis and new policy options. In the United States, the work of the Environmental Defense Fund (EDF) to develop the tradable SO<sub>2</sub> permit system that is now embodied in the 1990 US Clean Air Act provides an example of NGO-based policy ideas driving the regulatory process. At the international level, the work being earned out by a number of NGOs to persuade the WTO and its members to integrate environmental and labour concerns into the multilateral trading system offers another illustration of the vitality of NGO policy-making activity as a mechanism for improving governance.

We thus believe that, in contrast with Tieboutian models of regulatory competition which focus on horizontal competition between jurisdictions, governmental performance can be and should be sharpened by multiple sources of policy development and pressure - playing out at both horizontal and vertical levels and involving both state and non-state actors. This model of co-opetition further diverges from traditional regulatory competition in so far as it argues that optimal regulatory outcomes cannot be achieved through *competitive* pressures alone. The regulatory process will almost always benefit from a degree of *cooperation* among governmental actors and between government officials and non-governmental actors. This collaboration may occur in the form of shared mechanisms for issue-spotting, joint information gathering or data exchange, divided or collaborative research and analytic work, technology or policy transfers, and a division of labour in policy implementation and evaluation (Freeman, 1997). Such cooperation often generates economies of scale, permits an efficient degree of division of labour and allows for the governance structure to extract the benefits of both centralized and decentralized processes.

### **3.3. The Alternative Model: Regulatory Co-opetition**

Regulatory co-opetition plays out, as we noted above, at different levels and involves several types of actors. Three forms of regulatory co-opetition can be distinguished: (1) inter-governmental; (2) infra-governmental; and (3) *extra*-governmental.

#### **Inter-governmental regulatory co-opetition**

This term refers to the dynamics of competition and cooperation taking place among governments. This model of co-opetition has both horizontal and vertical dimensions. A dynamic of co-opetition can take place among or between governmental actors at the same jurisdictional level (for example across the US federal states or EU member states) or between governmental actors at different jurisdictional levels (for example between US federal and state authorities or the EU and Member States).

The main difference between the horizontal dimension of intergovernmental co-opetition and Tieboutian models of regulatory competition is that, while both models recognize the virtues of competition among state actors, the former model also recognizes that the regulatory process may in certain circumstances benefit from collaboration among horizontally arrayed governments. As illustrated by the US and EU systems, such cooperation can take the

form of harmonized standards, mutual recognition procedures, or - at a lower level on the 'integration' scale - exchanges of data, information and policy experience. In the EC, for example, the Council adopted a directive on mutual assistance in 1977, which was designed to facilitate the exchange of information relating to the assessment of taxes (Terra and Wattel, 1997).

A dynamic of horizontal co-opetition can also be beneficial at the global level. The twentieth century has been marked by rigorous economic competition between the US and Europe, and this interplay has had an impact on domestic regulatory policies. Major regulatory reforms within these blocks have often been stimulated by competitive pressures, especially the fear of deteriorating competitiveness. For instance, the opening to competition of the telecommunications and energy markets in Europe was in large measure based on the view that such markets were much less efficient than the deregulated US markets and that this inefficiency threatened the competitiveness of European industry generally (European Commission, 1987). Absent such competitive pressures, the grip of telecommunications and energy state monopolies on the European economy would probably have remained largely intact. Americans and Europeans increasingly collaborate on a range of regulatory issues in an effort to remove non-tariff barriers and thus to facilitate trade. For instance, bilateral regulatory harmonization and mutual recognition efforts have been undertaken by the United States and the European Union in the context of the New Transatlantic Agenda (Krenzler and Shonmaker, 1996). The two blocks have agreed to consult each other in the early stages of drafting regulations and to rely to a greater extent on each other's technical resources and expertise (European Commission, 1997). In recent years, the United States and the European Union have also increasingly cooperated in the antitrust field (Fox, 2001). Some degree of regulatory cooperation is also taking place on a multilateral basis. Although differences in levels of development, geographic circumstances, technical competence and risk preferences make collaborative standard-setting and enforcement difficult, a measure of regulatory harmonization has, nevertheless, been achieved under the auspices of the WTO. This process is most advanced in the intellectual property (Abbott, 1997) and telecommunications (Bronckers and Larouche, 1997) arenas. Pressure is now mounting for the adoption of multilateral rules on competition policy as well (Petersmann, 1996; Subramanian, 1997). To some extent, regulatory harmonization and cooperation efforts have also been undertaken by a variety of organizations (including the International Labour Organisation - ILO, OECD, International Standards Organization - ISO, and Codex Alimentarius) in the areas of labour (Bercusson, 2001), testing (Esty, 1994), food safety (Bredahl and Forsythe, 1989), and banking standards (Dewatripont and Tirole, 1994; Tirole, 2002). In the environmental field little regulatory convergence has been achieved due to the weakness of the United Nations Environment Program (UNEP), the opposition of developing countries, and hesitancy (fear of downwards harmonization) among some environmental groups (Esty and Geradin, 1997).

The dynamics of co-opetition among governmental actors also has a vertical dimension. As noted above, federalism, with its division of power among federal, state and local authorities, is inherently competitive. Inefficiencies or incapacity at one level of government will often be corrected by intervention at the other levels. For instance, the almost complete absence of governmental environmental activity in Europe's southern Member States was corrected by regulatory intervention at the EU level. Similarly, the expansion of US federal intervention in the environmental field in the 1970s was, in part, due to the failure of existing state regimes to adequately protect the environment (Kraft and Vig, 1990).

On the other hand, failures on the part of the federal authorities to carry out their duties or the risk that centralized governance structures may be subject to 'capture' contributes to the case for some degree of decentralization. For instance during the Reagan administrations in the 1980s, state enforcement of federal "Citrus" laws compensated for the limited federal enforcement of such laws (Hawk and Laudati, 1996). The competitive pressures created by a



federal structure with several levels of government - each level searching to extend or maintain its scope of power and influence - thus creates a system of 'checks and balances' that forces each level to strengthen its regulatory

As useful as the tension of regulatory competition can be, we believe that good governance often requires a simultaneous degree of cooperation across different levels of government. In the United States, a good bit of federal regulation, notably environmental programmes, depends in whole or in part on state implementation. Other examples of the value of cooperation abound^ fact, the shared regulatory responsibility between the federal and state eve of government is so central to the US governance structure that the system is often referred to as 'cooperative federalism' (Mott, 1990). In many ways, the EU relies on the same model with a significant element (perhaps even more so than in the American system) of cooperation between federal/central and member state authorities (Geradin, 1997).

We see a growing role for vertical competition. Not only has the capacity of state and local authorities improved dramatically in recent years (Esty, 1999) but the sophistication of international institutions is rising steadily Today, many regulatory issues are examined at local, state/provincial, federal/national, regional, and/or global levels. As in the case of a federal structure, the existence of several levels of regulatory activity puts pressure on governmental actors to carry out their tasks effectively and efficiently.

The strength of the competitive pressure varies from one regulatory domain to the next. Some tiers in this hierarchy remain generally too weak to add much value. Local decision-making continues to be plagued by technical and analytic incapacity-in many places. And many international institutions are too weak to impose real pressure on their member nations. Clearly, building sufficiently strong international governance structures that enhance the system of 'checks and balances' and contribute to the competitive regulatory dynamic represents one of the greatest challenges facing the world community in the context of growing economic interdependence.

### **Intra-governmental regulatory co-opetition**

We use this term to refer to the dynamics of competition and cooperation taking place *within* governments.

The competition may be inrra-branch, especially within a multi-ministry executive (Breton, 1996). Ministries will often hold competing views over the need for and the content of a proposed legislation. This dynamic strengthens the regulatory process by forcing those initiating the regulatory process to come up with innovative and analytically serious proposals and to justify their approaches against the alternatives proposed by others. This give-and-take depends as well on the presence of cooperative mechanisms - information-sharing, assignment of primary drafting responsibilities, and coordinated implementation - to prevent the rivalry between such bodies from degenerating and resulting in duplication of work, regulatory diseconomies of scale, or even decision-making stalemates.

A dynamic of co-opetition can also be observed among the branches of governments. Courts generally have the power to strike down unconstitutional laws. They thus represent a barrier against the most blatant legislative abuses. Conversely, in some instances, legislative intervention may also be used to correct the distortions created by inconsistent court decisions. A form of competition can therefore be observed between the judiciary and the legislature.<sup>25</sup> In some cases, the executive or judicial branches take the heat for stalemated legislatures. In the 1970s and 1980s, for instance, the European Court of Justice facilitated the free movement of goods with a series of decisions (the so-called *Cassis de Dijon* jurisprudence) declaring that a product that is lawfully produced and marketed in one Member State must be admitted in another Member State except where the latter can refer to 'essential requirements' (Weatherill and Beaumont, 1999). This principle of mutual recognition was designed to compensate for the legislative inaction of the Council of Ministers which, due to the rule of unanimity voting, was unable to achieve its programme of product standards harmonization.

In representative democracies, furthermore, there are regular contests for power (including competition for control of the regulatory apparatus) in the form of voting. Governments adopting inefficient or ineffective regulatory regimes thus risk being driven out of power. Given the relative lack of mobility of citizens, we see the lively tensions of intra-governmental rivalry as a more serious kind of competitive pressure than the hypothetical risk of exit that lies at the heart of Tieboutian models of regulatory competition. And, of course, while political parties compete for power, they must also cooperate between elections in the governing process. Bipartisan support will often be needed for constitutional or other major regulatory reforms.

### **Extra-governmental regulatory co-opetition**

We use this term to refer to the dynamics of competition and cooperation taking place between governmental and non-governmental actors, co-opetition between governmental and non-governmental actors promises to sharpen government performance by unleashing NGOs to act as intellectual competitors in the policy-making domain (Esty, 1998). In many cases, NGOs are better positioned to compete with regulators than are other governmental officials. NGOs are entrepreneurial and move to new issues quickly. NGOs operate in a fiercely competitive marketplace for media and public attention as well as fundraising resources. These pressures create a strong incentive to come up with creative solutions to environmental problems and to sell their solutions to the public and in the appropriate governmental arena.

NGOs, operating in a 'cooperative mode' *vis-a-vis* governments, can also contribute significantly to optimizing the functioning of policy-making processes. They often supply observations, data and information that help build the analytic foundation for decision-making. They also serve as conduits for information flows to and from citizens. In the United States infant formula marketing case, the activities of NGOs prompted Abbott-Ross and Bristol-Myers to alter their infant formula regulatory strategy. Beyond bringing critical information 'up' to decision-makers, such NGO participation in the regulatory process also permits the involved groups to disseminate information 'down' to the disaggregated public, helping citizens to understand decisions made by distant officials. Finally, NGOs, which are able to mobilize social disapproval against a company or product often help foster the internalization of regulatory norms. For example, it is unlikely that the certification of diamond as 'war-free' or tropical hardwoods as sustainable would have occurred but for the NGOs trying to create a new social norm (Murphy, 2003).

Industry associations also impose competitive pressures on governments. Like citizens' groups, they will often aggressively come up with relevant data and information, competing analyses and new policy options. In the area of swap transactions, the International Swap and Derivatives Association (ISDA) was formed to create standard documentation to eliminate the battle of the forms. Since the creation of the two master agreements in 1987, the ISDA has created documentation for a range of other derivatives, which has had a strong effect on the growth of the market (Scott and Wellons, 2002).

Proponents of regulatory competition may contend that co-opetition may lead to increased regulatory 'capture' by interest groups and, thus, reduced governmental transparency and accountability. Putting environmental NGOs, industry associations and other interests against each other, however, works to flesh out viable policies, induce investment in the creation of policy analysis and other valuable information, and generate countervailing forces that provide a 'watchdog' mechanism and therefore a check on 'capture' (Bratton and McCahery, 1995). It could also be argued that competing NGOs and industry associations simply create a cacophony of voices that ultimately cancel each other out. But this vision would be too simplistic. Good governance is not a zero-sum game. Competition between groups for governmental attention forces these entities to generate useful and credible material and to develop 'winning' proposals. This dynamic ensures that government officials will be able to

choose among a large set of policy options and hear well-honed arguments where difficult choices must be made.

The benefits of cooperation between governmental and industry actors should also not be overlooked. In the context of prudential supervision, the Committee on Banking Regulations and Supervisory Practices of the Bank for International Settlements (BIS) has sought, in response to identified weaknesses in the original Accord, to amend, since June 1999, the Basle Accord (Scott and Wellons, 2002). At first glance, the objective of the new Accord is to modernize the regulatory regime in light of the development of new financial instruments, which have influenced the behaviour of banks. The proposed new shift of the regulatory system, reflected in the second consultative proposal issued in January 2001, is based on a market-oriented approach that would allow banks to use an internal ratings-based systems (IRB) approach for rating credit risk of individual banks and external credit assessments by rating agencies to weigh the risk of loans to borrowers in certain classes. After joint efforts with the banking industry to identify expand and modify the IRB approach, the Commission and the major banks have reached an agreement about the parameters for IRB.

Cooperation between industry associations and governmental actors can also be observed at the global level. The International Organization of Securities Commissions (IOSCO), an international, non-governmental body which consists of autonomous government agencies, self-regulatory organizations and market actors, has been one of the central institutions responsible for promoting the harmonization of multinational offerings of securities capital adequacy standards for securities firms, and accounting standards (Underhill, 1995). The aim of IOSCO's working party on securities, for example, is to provide technical support in identifying the disclosure practices and legal requirements that enhance the process of raising capital, the objective of which is the adoption of harmonized disclosure requirements (for example, a common prospectus for the major securities exchanges where multinational offers are typically underwritten) (Biancheri, 1998).

#### 4. SUMMARY AND CONCLUSIONS

We have argued that regulatory competition theory makes a critical point: market forces and the tensions they generate provide an important set of incentives for creativity, innovation, efficiency and forbearance among regulators. But simplistic Tieboutian models of horizontally arrayed governments competing for citizens and factories neither describe the full potential of competition driven regulatory discipline nor paint a convincing picture of how to squeeze optimal results out of governmental processes.

More importantly, the results to be achieved by traditional regulatory condition will vary depending on the context. Where the market for regulatory results (or locational rights) closely resembles perfect competition, stronger and more constructive (welfare-maximizing) pressures can be anticipated from Tieboutian competition. While we may favour a presumption of competition, exceptions must be made where this market fails due to externalities, information limitations, public choice failures, or strategic behaviour in standard-setting.

Given real-world experience, which suggests that some degree of market failure will almost always be present, regulatory co-opetition represents a better model for achieving optimal governance. Harnessing inter-governmental, intra-governmental, and extra-governmental competitive pressures and simultaneously facilitating a degree of cooperation among the various participants in the regulatory process promises systematically improved outcomes. In this diverse and complex world of regulatory challenges, there remains a good bit of research to be done to identify the variables that determine the optimal mix of competitive and cooperate forces But we see considerable promise in promoting a degree of regulatory ecology' through which different species of

regulators and other actors coexist relationships that are sometimes competitive and at other times symbiotic.

Many issues remain unresolved, and further investigation is necessary in order to assess the robustness of these arguments. In this regard, it is important to focus attention on a few issues. First, the large literature on regulatory competition mostly examines normative claims about the effect of competition on institutions and rules. More should be known about the effect of competition on the development of law. Most of the empirical work has been conducted in the United States. There is a need for more studies in Europe to provide comparison cross-culturally and across a wider variety of regulatory fields. This would be valuable in providing insights into the projected benefits of regulatory competition, as well as highlighting the regulatory fields and systems that may not actually benefit from the presence of lower-level competition. Second, we should know the circumstances in which federal intervention provides a more efficient alternative to lower level regulation (Bratton and McCahery, 1995; Bebchuk and Ferrell, 2001). Third, we need better evidence about the circumstances in which effective regulatory cooperation takes place. The work we have described above has shown the factors that may support effective horizontal co-opetition.

We have no doubt that regulatory competition will continue to receive the same attention in the future as it has done in the past. The general trend should move away from the perspective that applies Tiebout's regulatory competition model and shifts to an approach that acknowledges the diversity in geographic circumstances and preferences, while arguing for variations in regulatory approaches.

## NOTES

1. This analysis, of course, is important for political scientists and legal scholars who are concerned with the protection of individual rights, see Weingast (1995); Easterbrook (1983). Law and economics has illuminated the tradeoffs involved when selecting a principle of federalism (that is, between economic efficiency, political participation, and individual liberties, see Inman and Rubinfeld (1997b).
2. The basic idea underlying the theory is that reducing the size of the regulating unit narrows the variance in the distribution of preferences and reduces the likelihood that the preferences will be bundled. Regulation, thus adapted to local conditions, is more likely to approach the ideal of consonance with citizen preferences. At the same time, decentralization increases the probability that a diverse range of preferences will come to be manifested in regulation promulgated by one or another jurisdiction. The localized experimentation thus fostered makes it possible for a range of regulatory strategies to appear, while simultaneously limiting the negative impact of unsuccessful regulatory experiments. Decentralization reduces the scope of the central government monopoly and ameliorates the negative effects of regulatory capture, see Woolcock (1996); Breton (1996); Scharpf (1999).
3. Romano (1993) has suggested that statutory law should be viewed as a product that is supplied by governments and purchased by firms. Ayres (1996) and Kahan and Kamar (2002) argue that the leading state has a high-powered incentive to continuously update its statutes and to create additional litigation, which preserves its first-mover advantage and generates a flow of cases.
4. The discipline of law-and-economics has made important contributions to the study of institutions and legal rules; see Newman (1998). Law-and-economics research has advanced our understanding of a broad range of legal subjects and legal systems; see Mattel (1997). Law-and-economics provides a powerful analytical framework for analysing the legal and regulatory issues involved in the assignment of authority to lower-level jurisdictions; see Bratton et al. (1996); Esty and Geradin (2001b).
5. The subsidiarity principle, set forth in paragraph 2 of Art. 5 (ex 3b) EC concerns subject matter as to which the EC and the Member States share competences. It imposes a burden of proof to justify action by the higher level of government, seeking to assure, first, that EC action taken in lieu of Member State action is justified, and, second, that any authority thereby accorded the EC is limited to the minimum necessary to achieve the articulated objective; see Dashwood (1996). As such, subsidiarity is not a principle of decentralization even if it incorporates a presumption in decentralization's favour. It is instead a principle that guides the upward and downward allocation of regulatory authority within the federation.
6. For an analysis of the tradeoffs between risk-sharing by centralized and decentralized governments, see Persson and Tabellini (1996).
7. The race-to-the-bottom approach assumes that, given full mobility, investors will migrate to the jurisdiction where they can earn the highest rate of return. The content of regulation and the level of public goods and taxation are dictated by governments competing for scarce investment capital; see Wilson (1996).
8. We borrow the concept of 'co-opetition' from Adam Brandenburg and Barry Nalebuff's book of the same name Brandenburg and Nalebuff (1996). The book explains that the optimal strategy for business is often a mix of competitive and cooperative actions.

9. If faithfully applied, the regulatory competition model would suggest that global free trade agreements are also unnecessary, since localities should adopt optimal trade policies on their own. Yet in the WTO arena, regulatory competition advocates recognize market failures of the kind discussed below. For a discussion of this apparent contradiction, see Father (1997).
10. An incidental cost benefit can also be suggested. Reconciliation of preferences through political channels of dialogue and voting costs more than reconciliation through market transactions; see Gilson and Schwartz (2001).
11. If a law is not cost beneficial but involves no externalities, there is at least some local incentive to change it; if the costs are externalized, there is no local incentive to make a change. Product liability laws that favour locals exemplify this; see Schill (1991).
12. Daniel Shaviro (1992) makes an additional point: because here regulation and attendant politics come down to the determination of cash amount, localized preference diversity presents a less important value.
13. LeBoeuf (1994), offers a different formulation of this point. He notes that a state that imposes anti-pollution legislation transfers wealth away from industry to those who have a clean environment, if the redistributive move embodied in the legislation is Kaldor-Hicks superior (actors in the aggregate are better off although some are left worse off), then the state can make a second redistributive move (a tax break, for example) that compensates industry for the cost of compliance, and still be ahead on a net basis in the end. If the state does not make the second redistributive move, it presumably prefers the redistributive result of the anti-pollution legislation. If the state enacts no anti-pollution legislation, its residents presumably prefer to devote resources to capital investment. Federal intervention is, accordingly, redistributive.
14. Gastios and Seabright (1989) assert that a prisoner's dilemma at the international level alone does not provide a sufficient justification for a delegation of regulatory authority to the supranational level.
15. The market for corporate law, for example, suffers from a surfeit of agency problems on the demand side; see Bratton and McCahery (1995).
16. It is worth pointing out, moreover, that there is very little evidence about the performance of state competition. The most extensive body of empirical research focuses on the effect of state competition on shareholder wealth in Delaware: see Bhagal and Romano (2001) (surveying empirical studies). Unsurprisingly, the evidence is mixed. A number of studies show that firms reincorporating in Delaware have higher abnormal returns, which supports the arguments of the race-to-the-top proponents in US corporate law; see Daines (2001) (finding evidence that companies in Delaware have higher Tobin's Q). But recent work challenged the main elements of Daines' study, suggesting that wide fluctuation of the Delaware co-efficient over the period of the study does not easily support the view that Delaware law improves firms' market value; see Bebchuk, Cohen and Ferrell (2002).
17. There is an ongoing debate, which we will not rehearse here, about whether economic externalities are 'real' or merely pecuniary; compare Revesz (1992) with Esty (1996).
18. The Tiebout model assumes full mobility of factors of production. Scholars note that this assumption is implausible. Formal showings confirm that the slightest relaxation of this assumption leads to inefficient public goods production; see Wilson (1996).
19. Industry sectors where large economies of scale can be achieved (for example electricity production and transmission) are generally considered to be 'natural monopolies'. Similarly, areas where important regulatory economies of scale can be achieved may be considered to be 'natural legal monopolies'; see Viscusi et al. (2001).
20. Esty and Geradin (1998) explain that 'harmonization' need not imply absolutely uniform standards. Alternative forms of harmonization or regulatory 'convergence' may permit some degree of standardization without the concomitant efficiency losses that single standards that do not match local needs generate. Harmonization debates themselves often entail competition over whose standards should be adopted. And agreement on a common standard need not bring an end to regulatory competition. Many forms of harmonization are flexible and open enough to allow continued debate over and refinement of the standards selected: see Leebron (1996).
21. Or, alternatively, the particular factor cuts an advantageous deal directly with the responsible government actor.
22. Romano (1993), maintains that there is a positive relationship between franchise revenue and corporate law responsiveness as evidence of state competition. Some, however, counter that the more appropriate measure of states' incentives to compete is marginal incorporation revenue; see Kahan and Kamar (2001). While Romano (2001) concedes the force of Kahan and Kamar's objection, she nevertheless speculates that since states enjoy the freedom to incorporate in the state of their choice, it may be that there may be a positive relation between marginal and total revenue.
23. We note, however, that this problem of joint supply can be ameliorated in theory through technological segregation or other forms of unbundling.
24. Many public economists find Tiebout's location model to be an unsatisfactory attempt to solve the problem of ascertaining individual's preferences respecting public goods; see Bratton and McCahery (1997) (summarizing literature).
25. As pointed out by Ogus (1999), competition may also take place between different court systems with overlapping jurisdictions. For instance, the struggle between the Chancery Courts and the Common Law rivals had a significant impact on the development of legal principles in the United Kingdom.
26. To some extent, political parties competing for power can be compared to firms engaged in a competitive bidding for a monopolistic franchise power to provide a service, the competition serving to ensure that the firm offering the most efficient prices and services will be selected: see Ogus (1999).

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